

REMARKS

Reconsideration of the application is requested.

Claims 1-6, 9, and 11-42 remain in the application. Claims 1-6, 9, and 11-26 are subject to examination and claims 27-42 have been withdrawn from examination.

Under the heading "Claim Rejections – 35 USC § 102" on page 2 of the above-identified Office Action, claims 1-3, 9, 14, 16-22, and 26 have been rejected as being fully anticipated by U.S. Patent No. 3,847,579 to Fulk et al. under 35 U.S.C. § 102. Applicants respectfully traverse.

Claim 1 specifies: said deflection roller held on said dancing arm such that said deflection roller, in addition to performing a pivoting movement about the mounting point of said dancing arm, can oscillate separately with respect to the pivoting movement.

It appears that the Examiner does not understand this limitation and/or does not understand the teaching in Fulk et al. Applicants first direct the Examiner to the specification of this application at page 15, line 8 through page 16, line 22, for example. Therein it is taught that the fiber bundle is displaced back and forth over the take-up spool as the fiber bundle is wound on the take-up spool. At the turning points when the direction of displacement of the fiber bundle over the take-up spool is changed, the take-up rate of the fiber bundle temporarily

drops. To compensate for the drop in speed of the take up rate at the turning points, the deflection roller is moved out of a position of equilibrium briefly without requiring the dancing arm as a whole to be pivoted about the mounting point. The deflection roller is provided with an oscillating capability so that it can be moved out of equilibrium without necessarily being pivoted. The specific example referenced in the specification is not meant to limit the feature in claim 1 that has been copied above, but rather is referenced merely for explanatory purposes to assist the Examiner in understanding the claimed invention.

In contrast to the feature of claim 1 that has been copied above, Fulk et al. teach a deflection roller that is held on an arm such that the deflection roller can only pivot. The deflection roller cannot additionally oscillate in addition to the pivoting movement. In support of the allegation that the deflection roller can oscillate in addition to pivot, the Examiner has referred to the arrow in Fig. 7 and to column 9, lines 37-40. To support the allegation that a pivoting movement is taught, the Examiner has referred to column 9, lines 20-36 and to column 10, lines 54-59.

Column 9, lines 27-32 teach that the arm 56 is fixedly mounted to the shaft 182 and pivots about the shaft 182. The arrow in Fig. 7 merely indicates the biasing force that is provided by the spring 58 in order to pivot the arm 56 about the shaft 182 in a clockwise direction. Column 9, lines 37-40, which has also been explicitly cited by the Examiner to support the allegation that an additional

oscillating movement is performed, makes it clear that the spring 58 does not somehow enable an additional oscillating movement, but that in fact the spring 58 provides a biasing force in order to pivot the arm 56 about the shaft 182 in a clockwise direction. Applicants respectfully request that the Examiner review Fulk et al. again in order to ascertain the correct teaching therein. Contrary to the allegation of the Examiner, Fulk et al. do not teach an oscillating movement that is in addition to a pivoting movement. Fulk et al. only teaches a pivoting movement about the shaft 182. The invention as defined by claim 1 is not anticipated by the teaching in Fulk et al.

Under the heading "Claim Rejections – 35 USC § 103" on page 4 of the above-identified Office Action, claim 4 has been rejected as being obvious over U.S. Patent No. 3,847,579 to Fulk et al. in view of Published Patent application US 2005/0126227 to Collaro under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe that claim 4 is patentable for the reasons specified above in regard to claim 1.

Under the heading "Claim Rejections – 35 USC § 103" on page 5 of the above-identified Office Action, claims 5, 6, and 15 have been rejected as being obvious over U.S. Patent No. 3,847,579 to Fulk et al. in view of Published Patent application US 2005/0126227 to Collaro and further in view of U.S.

Patent No. 4,130,248 to Hendrix et al. under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe that claims 5, 6, and 15 are patentable for the reasons specified above in regard to claim 1.

Under the heading "Claim Rejections – 35 USC § 103" on page 6 of the above-identified Office Action, claims 11-13 have been rejected as being obvious over U.S. Patent No. 3,847,579 to Fulk et al. in view of U.S. Patent No. 3,650,717 to Canfield under 35 U.S.C. § 103. Applicants respectfully traverse.

The Examiner has alleged that it would have been obvious to use the elastic material suggested by Canfield in the apparatus of Fulk et al. in order to provide proper tension on the fiber and to provide a dancing arm that can withstand the strain due to the tension. Applicants believe that the Examiner has mischaracterized the teaching in Canfield.

Canfield teaches constructing a transducer 50 on a flexible leg 52 in which stresses and strains from the strand 22 induce forces on the transducer 50 in order to create resistive changes in the piezo-resistive strain gauges 71, 72 that the comprise the transducer 50. The resistive changes correspond to the tensile forces induced on the transducer 50 by the strand 22, and a bridge 70 is used to generate an electrical signal to indicate the tensile forces (see column 4, lines 5-13 and column 7, lines 4-29). It should be clear that this teaching is

simply a transducer arrangement that is provided in order to measure the tensile forces in the strand (see column 3, lines 45-51). The electrical signal that indicates the tensile forces on the strand is used to regulate the speed of the collet 35 in order to keep a constant tension on the strand 22 (see column 7, lines 68-73).

Contrary to the allegation made by the Examiner, Canfield does not teach that the transducer arrangement itself provides a proper tension on the fiber strand and there is no teaching that the arm or flexible leg 52 is provided to withstand the strain due to tension. Canfield merely teaches a particular transducer arrangement in which strain gauges 71, 72 are placed on opposite sides of a flexible leg 52 in order to measure the tension that exists on the strand. It is clear that the purpose of the flexible leg 52 is to provide a carrier for the mounting the stain gauges 71, 72 on opposite sides thereof.

Fulk et al. teach a different type of arrangement for measurement purposes in which the resistance of the potentiometer 175 gives an indication of the pivoting movement of the shaft 182 and thereby gives an indication of the tension of the strand (See column 9, lines 29-36). The potentiometer 175 is connected to the shaft 182, which defines the pivot point.

First of all and most importantly, if the arm 56 of Fulk et al. were constructed from an elastic material as the Examiner has alleged is obvious, the tension sensing arrangement would no longer provide an accurate indication of the

tension on the strand. **The elastic material would bend somewhat and the distance that the arm 56 pivots about the axis of the shaft 182 would no longer give a proper indication of the tension of the strand.** If the Examiner will review the teaching in Fulk et al., it will become clear that applicants have correctly assessed the teaching and that the Examiner's assertion for modifying the teaching is not valid. One of ordinary skill in the art would not have been provided with a suggestion to make a modification in which the resulting structure would be unsuitable for its intended purpose.

Secondly, Fulk et al. and Canfield simply teach two different types of tension sensing structures. There is no teaching or suggestion of any sort of advantage that would result from combining certain parts of the different tensing sensing structures. One of ordinary skill in the art would not have been motivated to combine two different types of sensing structures that would appear to have equivalent functionality.

Third, the Examiner has stated that it would have been obvious to use the elastic material suggested by Canfield in the apparatus of Fulk et al. in order to provide proper tension on the fiber. Applicants point out that Fulk et al. and Canfield teach tension sensing structures. If these sensing structures were modified to impart tension on the strand, the tension measurements would be inaccurate. Applicants assert that one of ordinary skill in the art would not have been motivated to perform the modification asserted by the Examiner because

if one were to impart a tension to the strand, the tension measurements would be affected.

Under the heading "Claim Rejections – 35 USC § 103" on page 6 of the above-identified Office Action, claims 23-25 have been rejected as being obvious over U.S. Patent No. 3,847,579 to Fulk et al. in view of U.S. Patent No. 2,622,810 to Stream et al. under 35 U.S.C. § 103.

Applicants believe that claims 23-25 are patentable for the reasons specified above in regard to claim 1.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

In view of the foregoing, reconsideration and allowance of claims 1-6, 9, and 11-26 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of two months pursuant to Section 1.136(a) in the amount of \$460.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stermer LLP, No. 12-1099.

Respectfully submitted,

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MPW:cgm

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